



(Billing Code: 4150-31)

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Findings of Research Misconduct

AGENCY: Office of the Secretary, HHS

ACTION: Notice.

SUMMARY: Notice is hereby given that the Office of Research Integrity (ORI) has taken final action in the following case:

Adam C. Savine, Washington University in St. Louis: Based on the report from Washington University in St. Louis (WUSTL) and Respondent's admission, ORI found that Mr. Adam C. Savine, former doctoral student, Department of Psychology, WUSTL, engaged in research misconduct in research supported by National Institute of Mental Health (NIMH), National Institutes of Health (NIH), grant R56 MH066078, National Institute on Drug Abuse (NIDA), NIH, grants F31 DA032152 and R21 DA027821, and National Institute on Aging (NIA), NIH, grant T32 AG00030.

ORI found that the Respondent engaged in research misconduct by falsifying data that were included in the following three publications and six conference abstracts:

Publications

1. Savine, A.C., & Braver, T.S. "Local and global effects of motivation on cognitive control." *Cogn Affect Behav Neurosci.* 12(4):692-718, 2012 Dec. (hereafter referred to as *Cogn Affect Behav Neurosci.* 2012)
2. Savine, A.C., McDaniel, M.A., Shelton, J.T., Scullin, M.K. "A characterization of individual differences in prospective memory monitoring using the Complex Ongoing Serial Task." *J Exp Psychol Gen.* 141(2):337-62, 2012 May (hereafter referred to as *J Exp Psychol Gen.* 2012)
3. Savine, A.C., & Braver, T.S. "Motivated cognitive control: Reward incentives modulate preparatory neural activity during task-switching." *J Neurosci.* 30(31):10294-305, 2010 Aug 4 (hereafter referred to as *J Neurosci.* 2010).

Conference Abstracts

1. Savine, A.C., & Braver, T.S. (November 2010) "The contextual and local effects of motivation on cognitive control." Psychonomics Society, St. Louis, MO
2. Savine, A.C., & Braver, T.S. (November 2010) "A model-based characterization of the individual differences in prospective memory monitoring." Psychonomics Society, St. Louis, MO

3. Savine, A.C., & Braver, T.S. (November 2010) “Motivated cognitive control: Reward incentives modulate preparatory neural activity during task-switching.” Society for Neuroscience, San Diego, CA
4. Savine, A.C., & Braver, T.S. (June 2010) “Motivated cognitive control: Reward incentives modulate preparatory neural activity during task-switching.” Motivation and Cognitive Control Conference, Oxford, England
5. Savine, A.C., & Braver, T.S. (January 2010) “Neural correlates of the motivation/cognitive control interaction: Activation dynamics and Performance prediction during task-switching.” Genetic and Experiential Influences on Executive Function, Boulder, CO
6. Savine, A.C., & Braver, T.S. (June 2009) “Incentive Induced Changes in Neural Patterns During Task-Switching.” Organization for Human Brain Mapping, San Francisco, CA

As a result of the Respondent’s admission, the senior authors will request that the published papers be retracted or corrected.

ORI finds that Respondent falsified data and related text in *Cogn Affect Behav Neurosci.* 2012, *J Exp Psychol Gen.* 2012, *J Neurosci.* 2010, and in six (6) meeting abstracts, by altering the experimental data to improve the statistical results. Specifically, Respondent:

1. falsified data in *Cogn Affect Behav Neurosci.* 2012 to show an unambiguous dissociation between local and global motivational effects. Specifically, Respondent exaggerated (1) the effect of incentive context on response times and error rates in Table 1 and Figures 1 and 3 for experiment 1 and (2) the effect of incentive cue timing on response times and error rates in Table 2 and in Figures 6, 9, and S2 for experiment 2.
2. falsified data in *J Exp Psychol Gen.* 2012 to show that prospective memory is influenced by three dissociable underlying monitoring patterns (attentional focus, secondary memory retrieval, information thresholding), which are stable within individuals over time and are influenced by personality and cognitive differences. Specifically, Respondent modified the data to support the three category model and to show (1) that individuals fitting into each of the three categories exhibited differential patterns of prospective memory performance and ongoing task performance in Tables 1-3; Figures 5-8, and (2) that certain cognitive and personality differences were predictive of distinct monitoring approaches within the three categories in Figure 9.
3. falsified data in *J Neurosci.* 2010 and mislabeled brain images to show that motivational incentives enhance task-switching performance and are associated with activation of reward-related brain regions, behavioral performance, and trial outcomes. Specifically, Respondent modified the data so that he could show a stronger relationship between brain activity and behavior in Table 2 and Figure 4 and used brain images that fit the data rather than the images that corresponded to the actual Talairach coordinates in Figure 3.

Mr. Savine has entered into a Voluntary Settlement Agreement and has voluntarily agreed for a period of three (3) years, beginning on February 22, 2013:

- (1) to have his research supervised; Respondent agreed that prior to the submission of an application for U.S. Public Health Service (PHS) support for a research project on which his participation is proposed and prior to his participation in any capacity on PHS-supported research, Respondent shall ensure that a plan for supervision of his duties is submitted to ORI for approval; the supervision plan must be designed to ensure the scientific integrity of his research contribution; he agreed that he shall not participate in any PHS-supported research until such a supervision plan is submitted to and approved by ORI; Respondent agreed to maintain responsibility for compliance with the agreed upon supervision plan;
- (2) that any institution employing him shall submit, in conjunction with each application for PHS funds, or report, manuscript, or abstract involving PHS-supported research in which Respondent is involved, a certification to ORI that the data provided by Respondent are based on actual experiments or are otherwise legitimately derived and that the data, procedures, and methodology are accurately reported in the application, report, manuscript, or abstract;

- (3) to exclude himself voluntarily from serving in any advisory capacity to PHS including, but not limited to, service on any PHS advisory committee, board, and/or peer review committee, or as a consultant; and
- (4) that the senior authors will request that the following papers be retracted or corrected: *Cogn Affect Behav Neurosci.* 2012, *J Exp Psychol Gen.* 2012, and *J Neurosci.* 2010.

FOR FURTHER INFORMATION CONTACT:

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[FR Doc. 2013-05301 Filed 03/06/2013 at 8:45 am; Publication Date: 03/07/2013]